

ROSEVILLE
REQUEST FOR COUNCIL ACTION

Date: March 14, 2016
Item No.: 15.c

Department Approval



City Manager Approval



Item Description: Private Sewer Service Lining Discussion

BACKGROUND

Over the past couple of years, staff and the City Council have had discussions about the maintenance of private sewer and water connections including current policies related to the ownership limits of the service lines and how can and/or should the City assist in the maintenance of these service lines.

At their February meeting, the Public Works, Environment and Transportation Commission (PWETC) received a presentation from a consultant who is a regional expert in the trenchless rehabilitation of utility lines. This expert, Paul Pasko from SEH, Inc., provided a summary of what other agencies around us, and some nationally, are doing to either require residents to line or replace their service lines, or provide an option for rehabilitation. He also reviewed current technologies and the differences between main sewer line lining techniques and service line techniques.

Staff will provide a summary of this presentation at this Council meeting, but we encourage the City Council and any interested residents to watch the PWETC meeting to hear the presentation from Mr. Pasko. This archived video can be found by going to the following webpage:

<http://www.cityofroseville.com/79/Public-Works>

and clicking on “Archived webstreamed meetings” and then selecting the 2016-02-23 meeting. The Sewer Services lining discussion begins at 13:00 minutes into the meeting and lasts about one hour. There is some very good information in this presentation the Commission members asked several good questions.

Staff will particularly focus on questions related to policy and if the City should require the inspection of sanitary services and the lining of these services if they do not “pass” inspection. This justification for this requirement would focus mostly on the long term prevention of Infiltration and Inflow (I&I) that results in storm and/or ground water entering our sanitary sewer system and causing additional expenses for the treatment of that water. However, this policy would also provide a program that would result in rehabilitated sewer lines providing long term peace of mind for residents.

Attached are the minutes from the PWETC meeting.

FINANCIAL IMPACTS

There are no recommended costs to the City at this time however a policy discussion of contributing to the costs of rehabilitating private service lines would result in City expenses from the respective utility fund.

Private Sewer Services Lining Options

Attachment A

**Public Works, Environment & Transportation
Commission**

February 23, 2016

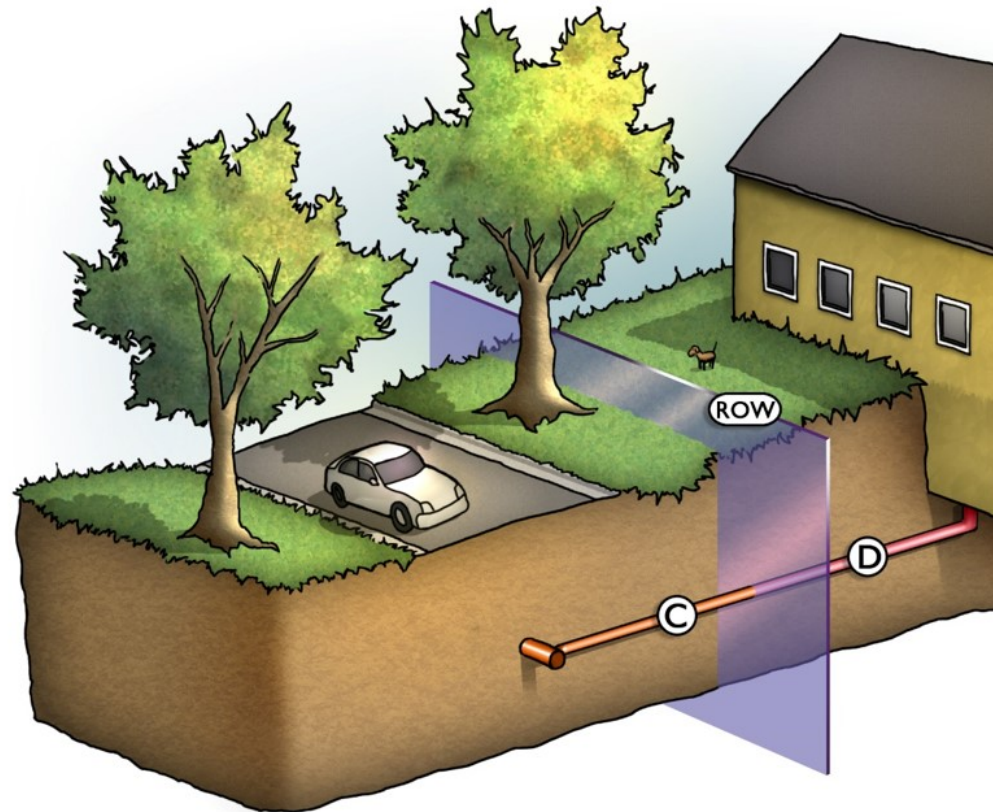


Agenda

- Why rehabilitate a lateral?
- Administratively, how do other communities do it?
- What Tools are They Using?
- How much do the tools cost to use?

Why Rehabilitate a Lateral ?

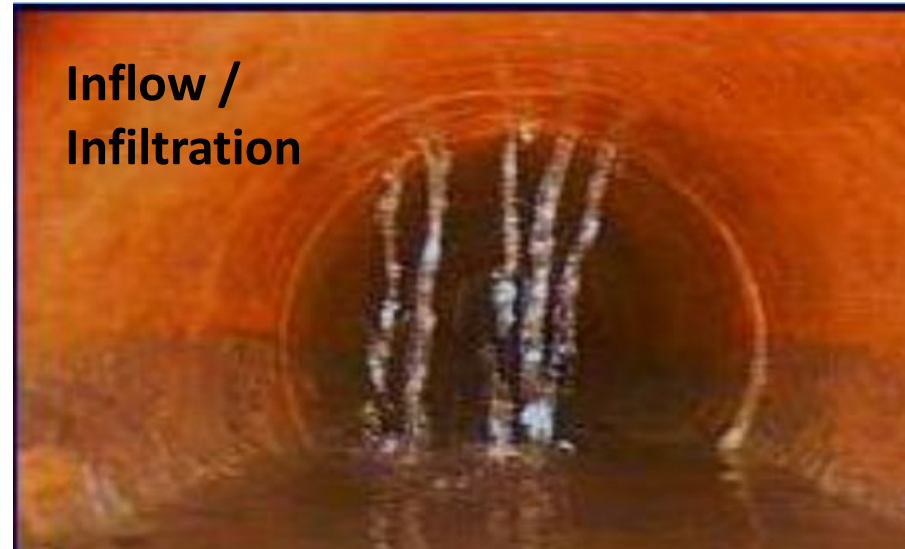
- Age - increasing failure rates
- Oldest infrastructure in ROW?
 - Previous street reconstruction addressed
 - pavement,
 - curb and gutter
 - boulevards
 - sanitary and storm sewer
 - Water main
 - gas main



Why Rehabilitate a Lateral ?

- Manage inflow / infiltration?
- Broken Pipe?
- Root intrusion?
- ~\$12K - \$15K to dig & replace laterals under street

Inflow /
Infiltration



09/17/15
171.7 FT.
MH START:
MH STOP:
Shakopee MN Jefferson St
1150 Jefferson-MH-38 - MH-37
Vitrified Clay Pipe 6



Root Intrusion

09/21/15
121.1 FT.
MH START:
MH STOP:
Shakopee MN Jefferson St
1126 Jefferson-MH-37 - MH-29
Vitrified Clay Pipe 6

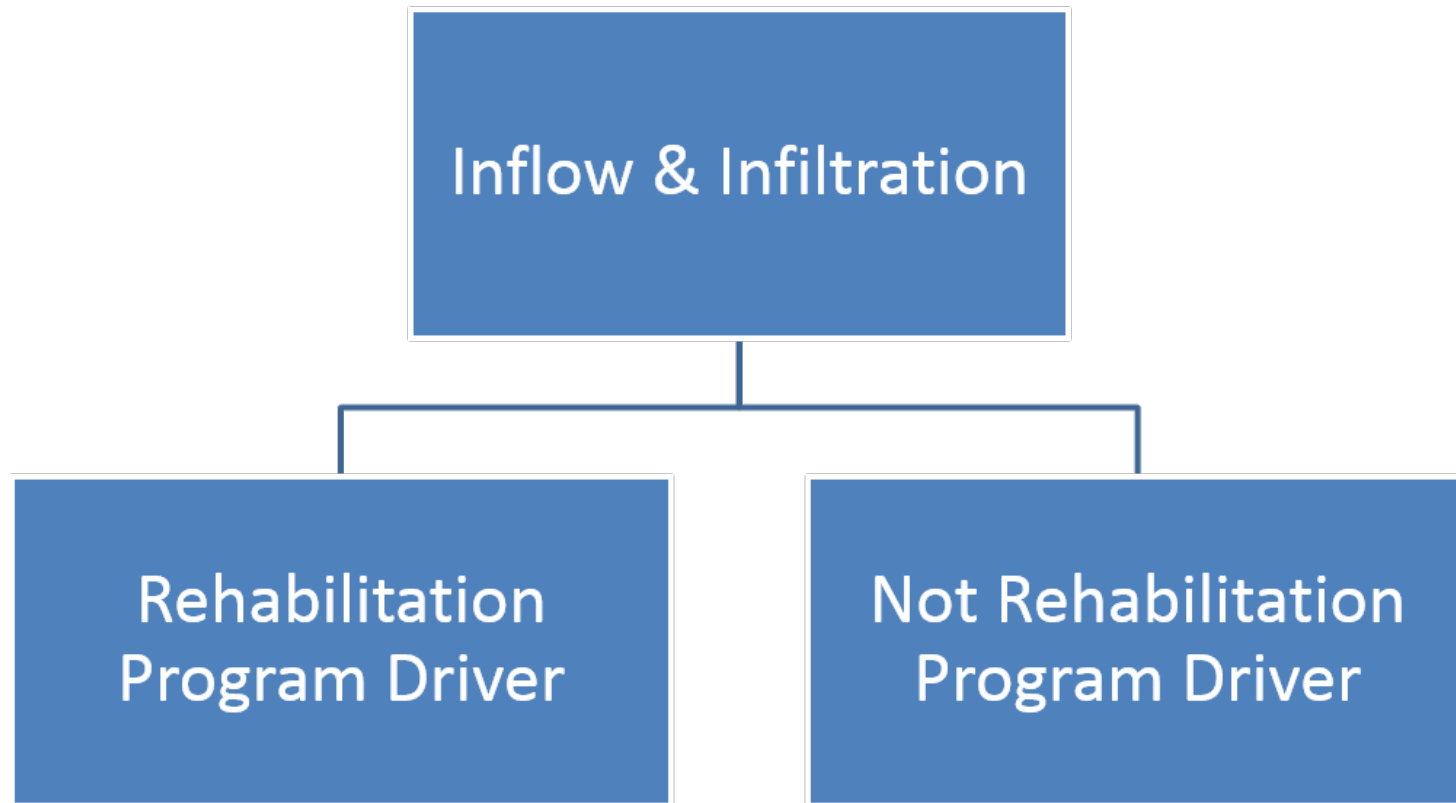


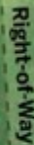
Broken
Pipe

09/21/15
9.4 FT.
MH START:
MH STOP:



Administratively, how do other communities do it?





Administratively, how do other communities do it?



HRSD has embarked on a pilot project that will identify and repair defective laterals (the pipes in yards that connect a house's plumbing to the city sewer pipeline in the street) at no cost to the homeowner. On the back of this flyer you will find a diagram of a sewer system and information about the methods of repair to be used if the tests explained below show that a lateral requires replacement.

The data we gather and the feedback we receive from the pilot participants will help us determine whether this is a program we should implement in other parts of Hampton Roads. If expanded, the project areas will be selected through coordinated efforts among HRSD and the localities it serves. Each future project would most likely include several hundred homes.

THE THREE TESTS

How Do We Plan To Find The Leaks?

Three different tests will be performed, most likely on different days. Two will take place on your property with your permission. Our testing firms will notify you in advance of their plans to test by hanging a notice on your door. They also will knock on your door on the day of the test to let you know they are about to begin work. One of the goals of the pilot project is to learn how best to schedule the tests, the amount of time to allow for this work, and which tests are most appropriate to perform.



Smoke Testing

During this test of the entire sewer system (which does not require access to your property), non-toxic, artificially created smoke is blown into access points (manholes) in the pipe. This smoke will escape through defects in the

Pressure Testing (AKA "The Mattress Test")

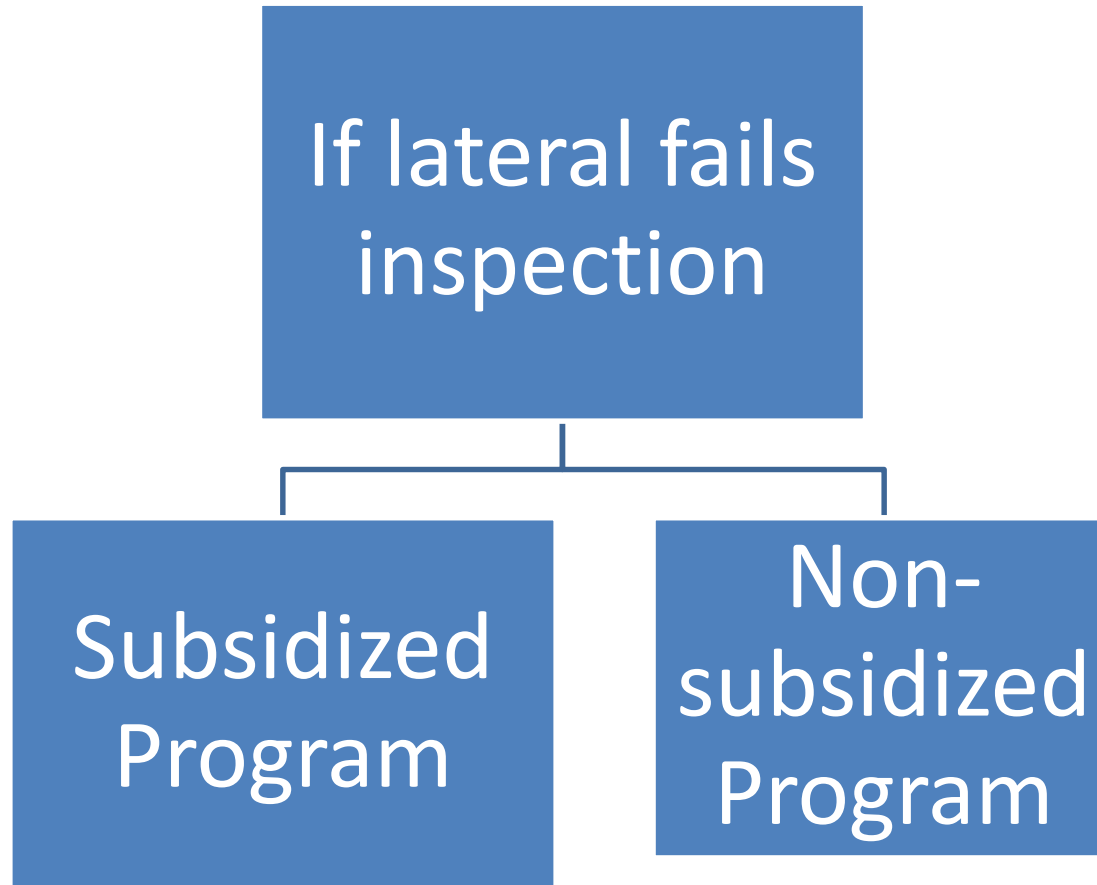
Imagine your air mattress has a small hole in it that is too small to see. No matter how much air you pump into the mattress, it will always slowly deflate. This same theory applies for the Pressure Test except it is done using an air compressor to blow air into the pipe under low pressure. If your sewer lateral does not lose pressure under this test, then we know that it is not defective.



Wet Weather Simulation/Television Inspection Testing

The best way to determine whether your roof leaks is to wait for a big storm and then look for water in your attic. The same is true for your sewer lateral. However, rather than waiting for a big storm to perform a wet

Administratively, how do other communities do it?



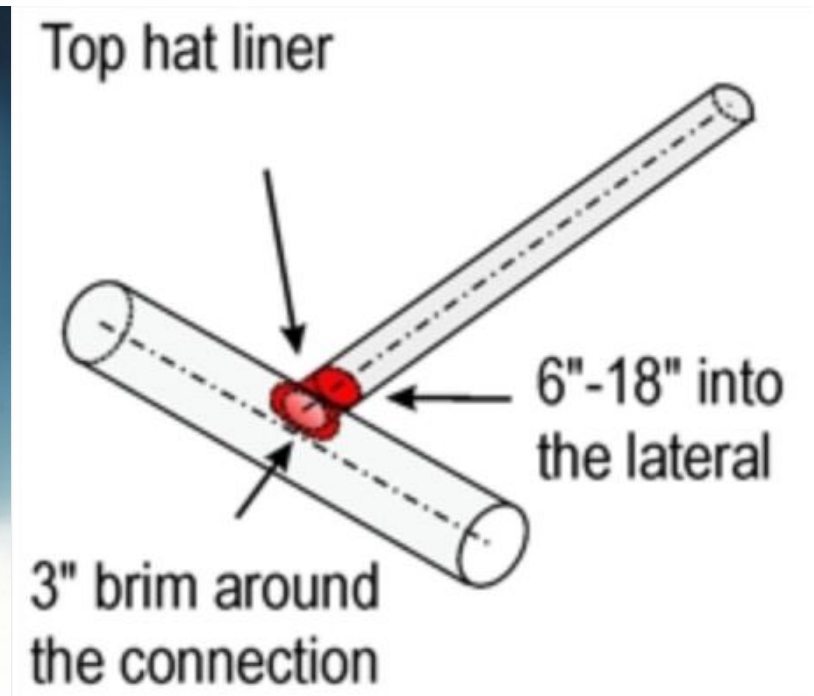
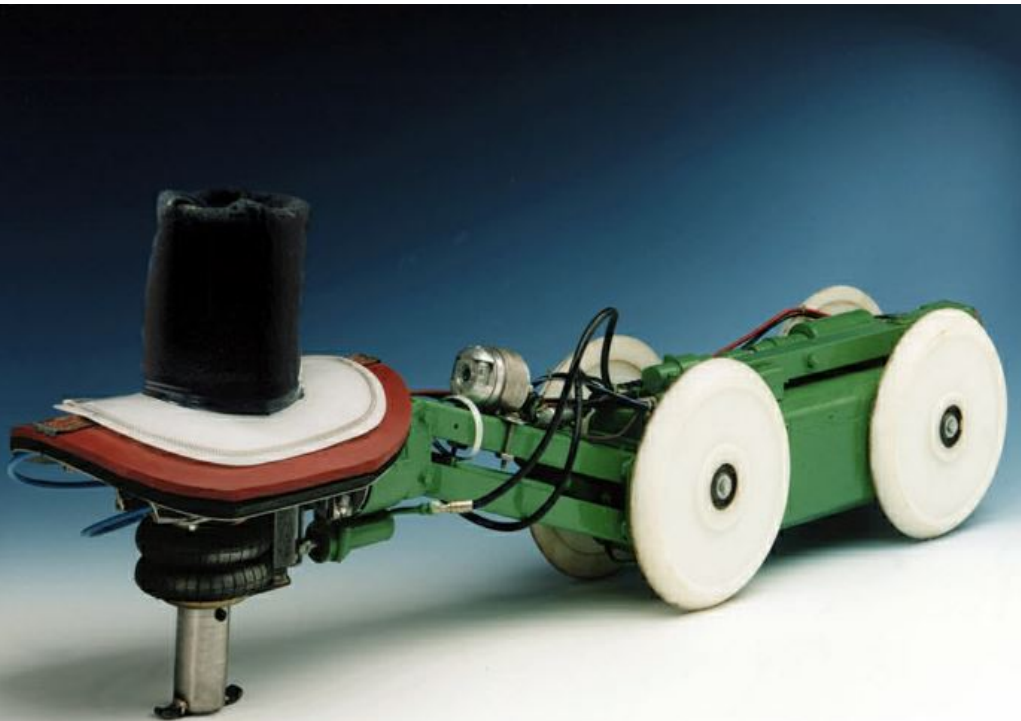


Administratively, how do other communities do it?

City	Inspections	Subsidized Rehabilitation	Lower Lateral - City Contractor			Upper Lateral	
			Wye	To Edge of Road	To ROW	City Contractor	Private Contractor
Edina	N	Y/N					X
Golden Valley	Y	N	X				X
Shakopee	N	Y		X			X
Hastings	N	Y			X		?
Rockford	Y	Y/N				X	
Hampton Roads, Va	Y	Y				X	

What Tools are They Using? - Lower Lateral

- “Top-Hat” style liner does not fully wrap the trunk sewer main, and extends < 18” into the lateral pipe



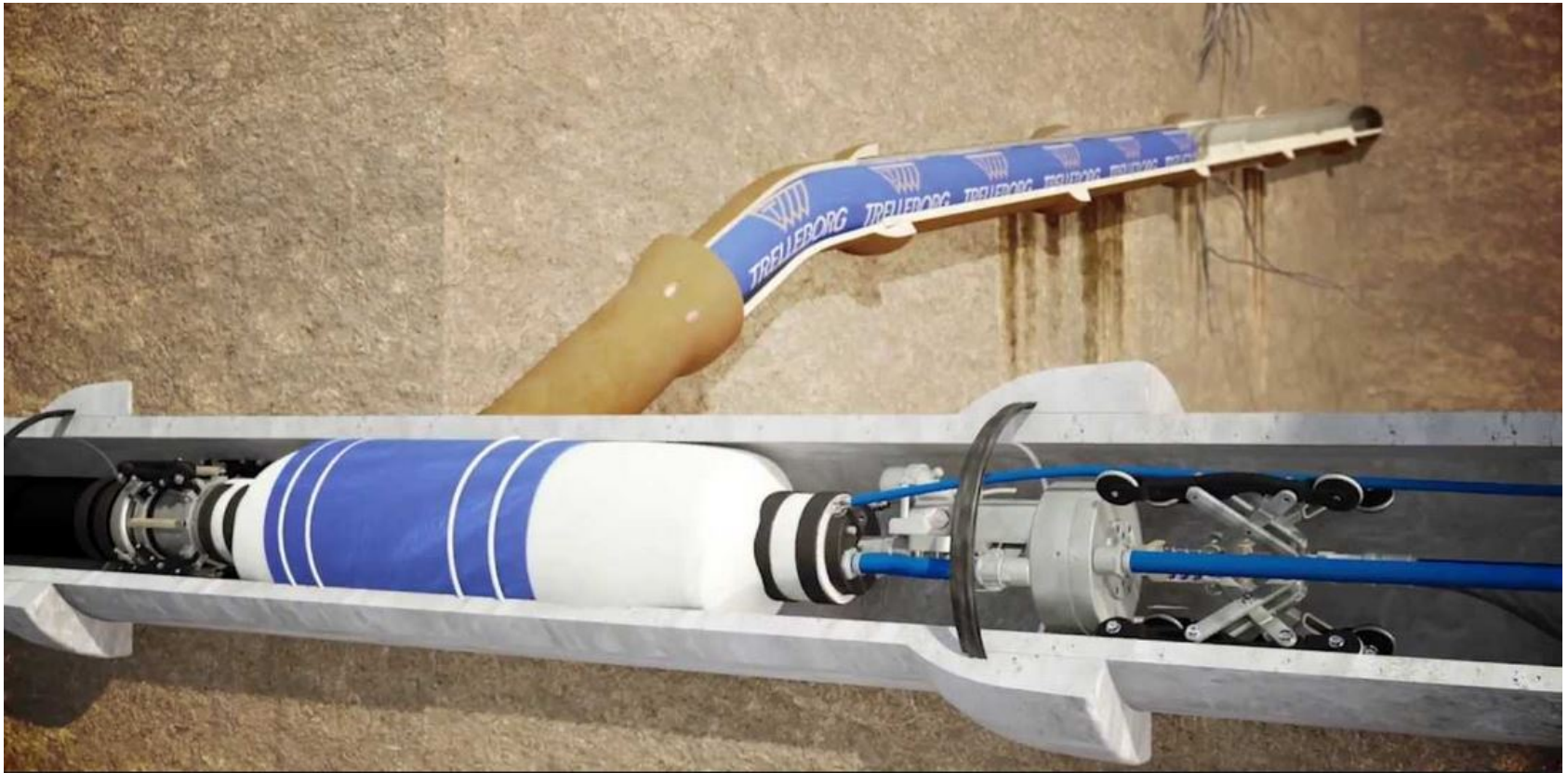
What Tools are They Using? -Lower Lateral

- “Shorty” style liner does fully wrap the trunk sewer main, and extends 1 – 2 feet into the lateral pipe



What Tools are They Using ? - Lower and Upper Lateral

- “Longer” style liner fully wraps the trunk sewer main, and extends > 2 feet into the lateral pipe
- Can be done with or without installing cleanouts



What Tools do They Use? – When to Use Robotic Tools?

- Prevent damage to a lateral liner - line main first
- sharp main liner edges must be “brushed”
- prevents tearing of the lateral liner



What Tools are They Using? – Lower and Upper Lateral



What Tools are They Using? - Cleanouts



How much do the tools Cost to Use?

Limit of Lateral Rehabilitation	<u>Very</u> Schematic Level Opinion of Construction Cost
Wye	~\$2,000
To Edge of Road	~\$3,000 - \$7,000
To ROW	
Upper Lateral	~\$1,000-\$2,000



Thank You!

Paul Pasko, SEH Project Manager –
952.912.2611 or ppasko@sehinc.com

Building a Better World for All of Us®



34 potential relocation to the sites of former shelters; report by staff of four watermain
35 breaks over the last month; and attendance by staff at the recent meeting of the St. Paul
36 Regional Water Services for its external customers.

37
38 Further discussion included the City's utility base rate structure being the envy of other
39 metropolitan communities and intended to provide for future capital improvement
40 program (CIP) planning for infrastructure updates and needs; and a future staff report to
41 the PWETC on how and where tree trimmings end up.

42
43 Specific to PWETC questions related to the City of Roseville's purchase of water from
44 St. Paul Regional Water Services (SPRWS), Mr. Culver advised that SPRWS's rate
45 structure would be facing challenges to pay for improvements to their treatment facility
46 and distribution system. Mr. Culver reported that the trend is for less water sales, and
47 without a base rate, not as much may be sold as anticipated. Mr. Culver noted that the
48 SPRWS's intent is to implement a base rate in the future that would theoretically build
49 those treatment costs into it. While Roseville maintained its own infrastructure, that rate
50 change may convolute the rate structure for Roseville; but he did anticipate future rate
51 increases, but hoped they wouldn't be too excessive and impactful for Roseville
52 residents. Mr. Culver noted that Roseville's water rates had not increased this year, while
53 other customers had experienced increases.

54 55 **5. Private Sewer Services Lining Options**

56 Mr. Culver introduced Paul Pasko, Project Engineer and-Principal at S.E.H., Inc. and his
57 credentials as someone considered in the industry as an experienced expert with lining
58 technologies and practices in the Midwest area. Mr. Culver reported that Mr. Pasko had
59 recently provided a presentation at a recent city engineer's conference based on his
60 experience with watermain linings in the City of Hastings, MN. As a result of that very
61 informative presentation, Mr. Culver advised that he had invited Mr. Pasko to share that
62 presentation with the PWETC to outline options and what other metropolitan
63 communities were doing to respond to this and similar issues.

64
65 Mr. Culver briefly reiterated, for background purposes, previous discussions of the
66 PWETC about ownership of service laterals and the City Council's charge to the
67 commission to recommend if any changes were evident. Mr. Culver reported that the
68 City Council continued to question if there was more the City could do since it was
69 pursuing an aggressive lining program for its aging sewer lines and in conjunction with
70 that address some of those older laterals for which residents were responsible and to
71 better protect those residents. As part of that consideration, Mr. Culver noted the yet-to-
72 be-determined impact of inflow and infiltration (I & I) that the City of Roseville was
73 undertaking as a mandate from the Metropolitan Council.

74
75 Mr. Pasko introduced his associate, Jen Schueman, in the audience, who worked with
76 him on projects throughout Iowa, Wisconsin and Minnesota in addition to other Midwest
77 areas.

79 Mr. Pasko noted that his presentation would essentially ask and provide information on
80 the following items:

- 81 • Why rehabilitate laterals?
- 82 • Administratively, how do other communities do it?
- 83 • What tools are they using?
- 84 • How much do the tools cost to use?

85
86 Mr. Pasko reviewed some points to consider, including those communities where I & I
87 were drivers and the various options used in communities for rehabilitation of those
88 laterals up to street reconstruction lines via assessment, including some of that work done
89 by the City's contractor or a private owner's contractor, but still allowed to be applied as
90 an assessment to property taxes.

91
92 Mr. Pasko reviewed the variables in the upper and lower laterals and options and
93 challenges in both. If I & I is the driver, and the attempt is to hit the upper lateral, Mr.
94 Pasko advised that many East Coast communities in the United States insist they have a
95 right to make sure those lines are in compliance with code and that private property
96 owners meet that code.

97
98 Mr. Pasko noted that care was needed to ensure clear ordinance language that protected a
99 citizen's Fourth Amendment Rights as it relates to unjust or arbitrary inspections of
100 private property, frequently debated by courts, but able to be sufficiently addressed with a
101 comprehensive ordinance in place prior to inspections and to protect municipalities. Mr.
102 Pasko noted that this involved access to private property and parameters for that access,
103 since there was obviously a potential liability for the city accessing private property
104 and/or laterals (considered private property) through main manholes, especially when
105 dealing with mishaps in using robotics. Mr. Pasko noted that if an unanticipated problem
106 occurred with the robotics, there was always the possibility that the lateral line would
107 need to be dug up to rescue the equipment; and suggested that would not be a good first
108 test of a city ordinance.

109
110 Mr. Pasko also noted the need for an ordinance addressing expenditure of public money
111 to rehabilitate private property and clearly defining those parameters or potential
112 circumstances, such as the municipality subsidizing a portion of the rehabilitation of
113 longer laterals. Mr. Pasko emphasized the need to make sure the ordinance was very
114 clear about how, when and why public monies would be expended. Other than in several
115 instances in the State of WI, Mr. Pasko advised that those Fourth Amendment questions
116 were being sufficiently addressed from his perspective as long as the ordinances were
117 enacted before rehabilitation was undertaken.

118
119 Specific to options used by other communities, Mr. Pasko reported on one who applied a
120 \$50/month surcharge for private property owners choosing not to rehabilitate those
121 private laterals as an incentive to encourage them to do so; while others used a subsidy
122 for rehabilitation; and others chose not to provide any subsidy. Another community, for
123 those property owners choosing not to rehabilitate their private laterals, chose to install an

inflatable ball where the city's line met the private lateral to prevent use of the main line beyond their lateral until the property owner chose to correct problem areas. Mr. Pasko reported other variables among communities: total subsidy for rehabilitation borne by the city, options for lower lateral rehabilitation by a city contractor only, and some of those done up to the wye, some to the edge of the road, and some up to the rights-of-way. Mr. Pasko noted that upper lateral lining was done by either using private or city contractors.

Specific to Minnesota communities, Mr. Pasko provided a matrix of the options used by the Cities of Edina, Golden Valley, Shakopee, Hastings, and Rockford; and for comparison purposes, he included the City of Hampton Roads, VA in that matrix.

Overall, Mr. Pasko opined that the most successful option he observed around the country was real estate transaction based, such as used by the City of Golden Valley, MN with point-of-sale inspections performed from within the home allowing a holistic viewpoint for both the upper and lower laterals. Mr. Pasko reported that some communities choose a dye or smoke test when possible. On the east coast, Mr. Pasko reported that over the last four years, they had experienced a turnover of homes at 10% to 15%, making those inspections a sustainable program, with the same home inspected periodically over a fifteen year period, and thereby compiling a database of information for the City's GIS system for comparison purposes. Mr. Pasko noted this was also possible for inspecting new homes being constructed annually and adding that data for future comparison purposes as well.

Lower Lateral Tools Being Used:

- **“Top-hat”** style liner with the potential that it may be unable to fully wrap the trunk sewer main and only able to extend <18” into the lateral pipe. Mr. Pasko noted further problems with this tool include the brim not always being wide enough to find its way through or around tree roots, causing communities to shy away from using it.
- **“Shorty”** style liner that does fully wrap the trunk sewer main, and extends 1-2’ into the lateral pipe.
- **“Longer”** style liner that fully wraps the trunk sewer main and extends >2’ into the lateral pipe and can be done with or without installing cleanouts. Mr. Pasko reported that the City of Shakopee, MN currently uses this tool.

When to Use Robotic Tools:

- To prevent damage to a lateral liner, you must line the main line first
- Any sharp main liner edges must be brushed to prevent tearing of the lateral liner

What Tools are They Using?

- Many communities use dig and replace in lower and upper laterals – depending on specific situations
- Use of cleanouts vary among communities and depends on their location, whether above or below ground

170 • Some communities choose to use vacuum excavating
171 Mr. Pasko noted that again, these choices are based on individual community ordinances
172 and their specific issues.
173

174 How Much Do the Tools Cost to Use?

175 Mr. Pasko again provided a matrix comparing the cost for various options, and limits of
176 the lateral rehabilitation, including:

- 177 • Up to the wye: estimated at \$2,000;
- 178 • Up to the edge of the road: estimated at \$3,000 to 7,000;
- 179 • Up to the rights-of-way (same as above)
- 180 • With the upper lateral, Mr. Pasko opined that most of the cost was the
181 contractor's mobilization to get to the site; with the actual length of the lining
182 not that problematic beyond the cost of the base project itself; estimating it at
183 \$1,000 to \$2,000 based on his very schematic level opinion of construction
184 costs.

185 As an example, in the City of Edina, with most of their single-family homes built pre- or
186 post-World War II, they may experience 60% to 70% of those homeowners using private
187 contractors.
188

189 If the City had cast iron laterals, Mr. Pasko suggested the city not bother and just leave
190 them along. However, if the majority of the city's pipes were clay or orange bird piping,
191 Mr. Pasko suggested that the city seriously consider a lateral lining initiative.
192

193 Based on his experience, Mr. Pasko briefly addressed lateral insurance or warranty
194 programs, and reported on various communities throughout the country.
195

196 Mr. Pasko provided one example of the city forces undertaking that private lateral work
197 themselves rather than hiring an outside contractor, essentially using city labor and
198 equipment. Mr. Pasko advised that part of their rationale was that it provided them
199 another opportunity to interact with customers in a positive way, and whether or not the
200 lateral rehabilitation program is also subsidized or not, they claim they've been
201 successful in their endeavors.
202

203 Mr. Pasko provided other examples, such as in the Philadelphia area where the
204 municipality chose a for-profit warranty program at reasonable rates. However, Mr.
205 Pasko noted that this created some significant increases in utility rates of up to a \$1
206 increase in one year; and some communities were limited in the number of contractors
207 serving in this capacity. Mr. Pasko noted that most of the warranty program agreements
208 allow the municipality to build in a clause for choosing contractors or only quotes from
209 local contractors. Mr. Pasko cautioned that there were pros and cons with this type of
210 warranty program, one of which was whether or not the municipality may be endorsing
211 certain plumbers above others. Mr. Pasko noted that he had found with municipalities
212 partnering with these warranty programs, their residents had been engulfed with mass
213 mailings from the plumbing industry.
214

215 Again, Mr. Pasko emphasized the need for appropriate ordinance language to protect the
216 municipality and its residents.

217
218 Q & A

219 During and after the presentation, Mr. Pasko responded to questions of the PWETC.

220
221 Chair Stenlund noted that, overall, the lower laterals in Roseville were not typically a
222 problem for I & I.

223
224 Given the age of the community and its infrastructure, Mr. Pasko opined that this was
225 most likely due to backfilling of pipes in rights-of-way done to a higher standard with
226 inspection staff on-site than may be found in current construction efforts. Mr. Pasko
227 noted that the other side of the laterals were usually more problematic outside that right-
228 or-way line with private contractors being less diligent in packing soils. Mr. Pasko noted
229 that this was problematic nationwide, with findings that the lower lateral is better
230 compacted than the upper lateral as it related to I & I.

231
232 Chair Stenlund noted that some mains were not under the road in Roseville, but may be
233 located on one side or the right-of-way or the other, and affected homeowners
234 accordingly for rehabilitation costs. Member Stenlund questioned if those situations
235 would be redlined as good candidates to consider for lining sooner than later.

236
237 Mr. Pasko responded that lining was paid for by the foot; and as an example, there were
238 many situations where whether or not that lateral was on the short or long side, those
239 homeowners on the short side got more of a bargain than those on the long side. Mr.
240 Pasko noted that some communities stipulate that all property owners pay the same to
241 equalize factors; but if not a lot of those situations, that was not taken into consideration
242 beyond a unique situation. Mr. Pasko noted that there were many different ways for a
243 community to approach that inequity.

244
245 Chair Stenlund questioned problems with flows coming toward the lining and creating a
246 plug.

247
248 Mr. Pasko responded that there were not, and as an engineer, a pre-lining television
249 inspection (after cleaning the line) was performed and if active I & I was found, it may be
250 addressed with a plug, while tree roots were removed. After that, Mr. Pasko noted that
251 the end cap was cut off and then inspected again, and if the problem or indication of a
252 problem during installation was observed, it was removed and the process done again.
253 Mr. Pasko advised that he uses a two-year inspection clause for lining contractors,
254 requiring them to re-inspect and correct any problems on their own dime. While it varies
255 with contractors, Mr. Pasko advised that the best lining contractors average 2% or less
256 with problem areas.

257
258 At the request of Chair Stenlund, Mr. Pasko advised that the liner has a built-in taper,
259 with minimal identification loss, and while there may many roots and problems within
260 the pipes, there was little problem or evidence of problems from flushable items getting

261 caught in the laterals with the smaller and smoother liner applications now available with
262 improved technologies.

263
264 Member Wozniak asked if there was a limit to the pipe condition in which lining would
265 work (e.g. broken, disjointed or disconnected) that determined if and when the liner tool
266 would still prove effective.

267
268 Mr. Pasko advised that the only problem was a pipe was a pipe with 50% or more
269 missing; and even then if technicians were gentle in the lining, they could still blow right
270 through that broken or missing area, essentially creating a pipe within the pipe. Mr.
271 Pasko noted that the only problematic situations he'd observed were if a pipe had been
272 crushed or offset and became oval or teardrop shaped. At that point, Mr. Pasko suggested
273 it may be better to dig and replace that spot, or in areas with a sag. Again, Mr. Pasko
274 noted the need to address that clearly in ordinance language to address rights and
275 responsibilities for laterals for homeowners and the municipality.

276
277 At the request of Chair Stenlund, Mr. Pasko estimated the typical cost for each cleanout
278 would be \$1,500 to \$2,500 each, and perhaps up to \$3,000 for vacuuming.

279
280 Based on his experience, Member Seigler asked Mr. Pasko if those communities offering
281 a warranty program were happy with it.

282
283 Mr. Pasko opined that it varied: with older communities getting more than new
284 communities; along with some property owners pushing back or not wanting to
285 participate based on their preference for less government intervention.

286
287 Chair Stenlund asked staff to report on the percentage overall in Roseville of PVC, clay
288 or cast iron laterals.

289
290 Mr. Culver noted that, with the majority of the Roseville sewer system installed in the
291 late 1950's, and primarily in the 1960's, most lines were clay, but he wasn't able to
292 identify how much if any were cast iron. Mr. Culver noted that, obviously, new lines
293 were of PVC construction, but those were few and far between unless in new
294 construction situations.

295
296 Mr. Pasko noted that this would fit in with most of the upper Midwest and national
297 averages, with clay popular at the turn of the century through the 1970's until use of cast
298 iron, then trending to PVC once that technology became available.

299
300 Given the age of most of the homes in Roseville, Member Seigler asked when a large
301 amount of lateral failures could be anticipated.

302
303 Mr. Pasko advised that it had a lot to do with soil type and trees in their vicinity. Based
304 on the amount of Roseville's tree cover, Mr. Pasko opined that there was probably a lot
305 of root damage that had already occurred or was occurring right now. Mr. Pasko noted
306 that the sub-grade soils around Roseville varied; and if you had heavy clay soils, any

defect in joints when the laterals were put together were probably leaking water. If those soils were sandy, Mr. Pasko opined that most of the surrounding trees were drinking water out of those laterals and had been doing so for some time.

Mr. Culver referenced the permit information previously supplied to the PWETC for sewer services (September 2015) and advised that those numbers continued to increase. When televising city mains, Mr. Culver reported that they looked the short distance available into laterals, and when seeing an obvious root intrusion, those property owners were sent a standard courtesy letter alerting them to that observation.

Mr. Pasko briefly reviewed some of the new inspection tools available in that ever-changing technology and ability for television inspections that can pan and tilt about 1' into the lateral. Also, if no root intrusions are observed, Mr. Pasko advised that a small crawler attached to the main robot can be deployed to move up the lateral into the home carried by a tether.

If there are too many roots present or a sag, Mr. Pasko noted there is also technology for a mobile probe through the home's inside cleanout consisting of a low voltage probe to hit the pipe, then another section grounded to a sign post or fire hydrant to ground it and complete the circuit. Mr. Pasko advised that this allows the operator to measure how much current arrives at that ground from the probe and from the amount of current back estimate or calculate the amount of I & I that can go in. Mr. Pasko noted that this also provided a nice and repeatable measure from one year to the next. However, Mr. Pasko noted that it also depended on the operators on those cameras and their skill levels; again requiring ordinance parameters that clearly define potential problem areas and variables.

At the request of Member Cihacek, Mr. Pasko confirmed that the contractors performing lining of mains and those lining laterals were two separate specialties with their equipment also radically different at this time. Mr. Pasko noted that lining of mains was becoming more common and specialized, and those contractors didn't want to stop that process to deal with laterals. Mr. Pasko advised that he had yet to see any contractor make lining laterals part of lining main lines. Mr. Pasko noted that it was more common to line the mains one year and return the next year to line laterals.

In the City of Edina, Mr. Pasko reported that when they do street reconstruction, they will also rehabilitate or line laterals, but that is typically done by a different contractor while still allowing private owners to take advantage of a better rate for that contractor to do multiple linings once mobilized. In other words, as suggested by Member Cihacek, if the City of Roseville bid street reconstruction, and chose to bid laterals while the street was torn up, it made sense to do so, but otherwise there was no benefit to bidding them together. Mr. Pasko reiterated that he didn't see those technologies merging anytime soon; since those operating the joysticks differ. Mr. Pasko advised that the skill sets of most of those operators were amazing; with some of the best he'd observed having previously been drone pilots, and transferring those skills to this technique.

From his perspective, Chair Stenlund asked Mr. Pasko for his opinion on why or how a homeowner could be responsible for a portion of the line under the street and beyond his right-of-way; and without any power on their part to control what occurs around or near that line, such as compaction or traffic vibrations. Chair Stenlund also sought Mr. Pasko's observations of other communities and their practice.

Based on his experience across the country, Mr. Pasko advised that he was only personally aware of one community that stops ownership at the property line or right-of-way. Mr. Pasko advised that the responsibility of the owner usually went to the main and includes the wye, with the private property owner responsible for the lateral and wye connection that comes into the main to make it a complete pipe. Furthermore, Mr. Pasko noted that it was common on the east coast for ownership of the wye and lateral up to the main. Mr. Pasko recognized that the wye was generally the first part to break.

Mr. Pasko noted that the State of MN was actually progressive in that a private property owner didn't own water service to the main or half or all of the curb stop box; and advised that many communities across the nation do so.

Mr. Pasko opined that depending on the situations and technology to employ them, he suspected that the use of cleanouts was coming to an end. Mr. Pasko noted that it wasn't unusual for private plumbers to carry liners into home basements or install cleanouts next to the foundation wall but not in a right-of-way.

Member Seigler asked if water laterals and linings had the same issues as that of sanitary sewer lines as far as deterioration.

While water mains were similar in terms of trouble spots and many can be rehabilitated using similar technology, Mr. Pasko noted that it depended on the community and its type of soil. Mr. Pasko advised that 30% to 60% of pipe wall loss was being experienced in communities with 1920's era infrastructure. Mr. Pasko anticipated that in the next ten years, technologies will be available allowing for water service pipes of 1/2" diameter to be lined, once the materials used are certified; with some being experimented with now.

Mr. Culver reported that S.E.H., Inc. will be designing and administering a Roseville project lining the water main on Heinel Drive due to it being a long dead-end street and creating difficulties for those residents if an open cut process was used. Mr. Culver advised that this new technology for water main lining was different than the previous pilot program using 3M spray-on material.

On behalf of the PWETC, Chair Stenlund thanked Mr. Pasko for his informative presentation and discussion.

- 6. Roseville Recycling Request for Proposals (RFP) – continued from January**
Mr. Culver referenced the staff report and attachments; highlighting specific items remaining for PWETC recommendation. Mr. Culver also provided a summary of the 60 comments and questions received via the Speak Up! Roseville website.

31 **STAFF RECOMMENDATION**

32 Staff requests that the City Council receive this summarized presentation from staff and provide
33 guidance going forward on a possible new policy and/or program for the lining of private sewer
34 services.

35 **REQUESTED COUNCIL ACTION**

36 Receive presentation and provide guidance to staff on further steps, if any.

37 Prepared by: Marc Culver, Public Works Director
Attachments: A: Presentation
B: Excerpt from the February 23, 2016 PWETC meeting